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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
XU, KEVIN K

ART UNIT	PAPER NUMBER
2628	

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/741,808	BAXTER ET AL.
	Examiner	Art Unit	
	Kevin K. Xu	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>08 September 2006</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *6-10* is/are allowed.

6) ☒ Claim(s) *1-5 and 11-20* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/8/06 have been fully considered but they are not persuasive. Specifically applicant has argued Lengyel ("Rendering with Coherent Layers") does not teach "blending the object and one or more shifted instances of the object to obtain a blended object." Examiner respectfully disagrees. It should be noted that applicant appears to be reading, "blending the object and one or more shifted instances of the object *with each other* to obtain a blended object" into said claim. However, the claim **does not** require the blending the object and one or more shifted instances of the object and *blending them together* to obtain a blended object. Again it should be noted that the claim **does not exclude** blending the object with an object other than the object itself (Lengyel teaches blending a moving object with a shadow sprite for example). It should be noted that Lengyel explicitly teaches blending the object (p. 3 section 2.3, p. 4 section 3.2 and p. 4 section 3.4, p. 4 section 3.2 and p. 4 section 3.4, Fig. 6) and blending one or more shifted instances of the object (Fig. 3, p. 3 section 2.3, p. 4 section 3.2 and p. 4 section 3.4, p. 4 section 3.2 and p. 4 section 3.4, Fig. 6) to obtain a blended object. In conclusion, it should be noted that Lengyel teaches blending an object with another object (perhaps a shadow or reflection layer sprite) as well as blending the shifted instances of the object and further creating a motion blur effect.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, with regard to claim 4, Lengyel teaches rendering hardware supporting texture mapping with transparency as well as quality parameters for texture (such as level of detail) (p. 1 introduction, p. 1 Fig. 2, p. 2 Section 1.1) and therefore it would have been obvious to incorporate bump mapping (a type of texture mapping) as taught by Kato because it is well known that bump mapping may provide a more richer, detailed surface representation than standard texture mapping.

Regarding applicant's request of references regarding examiner's assertion of official notice for claims 1-3, 5, and 16-20, examiner will supply references that teach missing claimed subject matter. (See Below)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lengyel. ("Rendering with Coherent Layers")

Consider claim 11, Lengyel teaches generating one or more shifted instances of an object. (p. 1 introduction, p. 1 Fig. 2, p. 2 Section 1.1, p. 3 section 2.3, p. 4 section 3.2 and p. 4 section 3.4, p. 4 section 3.2 and p. 4 section 3.4) Furthermore, Lengyel teaches blending the object and one or more shifted instances of the object. (p. 3 section 2.3 and p.4 section 3.2 and Fig. 6) It should be noted that Lengyel teaches sprites as image layers and transformation together (p. 1 introduction). Furthermore, Lengyel teaches the reflection layer is generated from a texture map and the shading model, as taught by Lengyel, can be factored into texture layers, manipulated for texture-blending factors interactively at full frame rate. (p. 3 section 2.3)

Consider claim 12, Lengyel teaches displaying blended object on a visual display. (p. 3 section 2.3 and Figs 24-26)

Regarding claim 13, Lengyel teaches blending the blended object with a background. (p.1 introduction, p. 2 section 2.1, p. 3 section 2.3) It should be noted Lengyel teaches the blended object is formed from texture image layers (p. 3 section 2.3) and a background is an image layer (p.1 introduction, p. 2 section 2.1). Therefore, because Lengyel teaches separate texture layers can be manipulated by texture-blending factors, a blended object (blended texture factor layer) can be blended with a background (texture layer).

Regarding claim 14, Lengyel teaches displaying blended object on with a background. (p. 3 section 2.3 and Figs 24-26)

Consider claim 15, Lengyel teaches displaying the blended object on a

communication device. (p. 3 section 2.3, Fig. 2 and Figs 24-26) It should be noted that

the communication device as taught by Lengyel is compositor with a display.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lengyel ("Rendering with Coherent Layers") in view of Morgan (6756989).

Regarding claim 1, Lengyel teaches generating blurred copies of an object by

applying multi-texturing to the object through a graphics-processing pipeline. (p. 1

introduction, p. 1 Fig. 2, p. 2 Section 1.1, p. 3 section 2.3, p. 4 section 3.2 and p. 4

section 3.4) It should be noted that Lengyel teaches sprites as image layers (p. 1

introduction) and the reflection layer is generated from a texture map and the shading

model, as taught by Lengyel, can be factored into texture layers. (p. 3 section 2.3)

However Lengyel fails to explicitly teach one pass through a graphics processing

pipeline. This is what Morgan teaches (Col 2 lines 21-31, Col 13-14 line 65-line 8) **It**

should be noted that examiner took official notice with regard to utilizing one

pass through a graphics pipeline and has now supplied a reference due to

applicant's request. It would have been obvious to one of ordinary skill in the art at

the present time the invention was made to utilize one pass through a graphics

processing pipeline of Morgan into the system of Lengyel in order to generate blurred copies of an object by applying multi-texturing because a one pass graphics processing pipeline is more computationally efficient than multi-pass pipeline and thus, processing time can be reduced.

Regarding claim 2, Lengyel teaches generating a texture and shifting the texture with respect to the object before applying the texture to the object. (p. 3 section 2.3 and p.4 section 3.2) It should be noted that Fig. 8 and Fig. 11 show shifting of texture. (p.4 section 3.2 and p. 4 section 3.4) Furthermore, Lengyel teaches the texture layers are composited to produce the final image. (p. 3 section 2.3, Fig 2 and Fig. 6) and therefore, applying texture (compositing texture layers) to the object (final image) occurs after generating a texture and shifting the texture of each layered image (sprite).

Regarding claim 3, Lengyel teaches displaying blurred copies of the object on a visual display. (p. 4 section 3.4 and Fig. 11)

Regarding claim 5, Lengyet teaches generating blurred copies of the object by applying multi-texturing to the object during one pass through the graphics processing pipeline further comprises displaying the blurred copies of the object on a visual display coupled to a communication device. (p. 4 section 3.4 and Fig. 11 and Fig. 2) It should be noted that the communication device as taught by Lengyet is a compositor.

Consider claim 16, Lengyet teaches a texture memory in which to store texture information. (p. 1 section 1.1) It should be noted that Lengyel teaches sprites as image layers (p. 1 introduction) and the reflection layer is generated from a texture map and the shading model, as taught by Lengyel, can be factored into texture layers. (p. 3

section 2.3) Furthermore, Lengyel teaches shifting and blending texture information to

through a graphics processing pipeline (p. 3 section 2.3 and p.4 section 3.2) It should

be noted that Fig. 8 and Fig. 11 show shifting of texture. (p.4 section 3.2 and p. 4

section 3.4) However, Lengyet does not explicitly teach a graphics processor. This is

what Morgan teaches (Col 4 lines 51-67, Col 5 lines 58-64) **It should be noted that**

examiner took official notice that a graphics processor can process texture

information and has now supplied a reference due to applicant's request. It

would have been obvious to one of ordinary skill in the art at the present time the

invention was made to utilize a graphics processor of Morgan into the system of

Lengyel in order to process texture information because graphics processors are

designed to be very efficient at rendering and manipulating computer graphics.

Moreover, Lengyel fails to explicitly teach one pass through a graphics-processing

pipeline. Nonetheless, it would have been obvious to one of ordinary skill in the art at

the present time the invention was made to utilize one pass through a graphics

processing pipeline of Morgan into the system of Lengyel in order process texture

information by shifting and blending texture information because a one pass graphics

processing pipeline is more computationally efficient than multi-pass pipeline and thus,

processing time can be reduced.

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lengyel

("Rendering with Coherent Layers") in view of Morgan (6756989) in further view of Kato.

(5999185)

Regarding claim 4, Lengyel fails to explicitly teach bump texturing. This is what Kato teaches. (Col 3, lines 25-33) It would have been obvious to one of ordinary skill in the art at the present time the invention was made to combine the teachings of bump texturing as taught by Kato into the system of Lengyel in order to generate blurred copies of the object by applying multi-texturing to the object because bump mapping provides the functionality of providing an uneven appearance of the surface, which can be put in a pattern of a rock face, a brass work or a water ring (Col 3, lines 28-31) and thus a more realistic texture representation can be achieved.

Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lengyel ("Rendering with Coherent Layers") in view of Morgan (6756989) in further view of Kawahara. (20050204306)

Regarding claim 17, Lengyel fails to explicitly teach a graphical user interface object. This is what Kawahara teaches. (p. 2 paragraphs 25 and 28, p. 3 paragraph 59, p. 5 paragraph 86 and Fig. 10) It should be noted that the graphical interface user object as taught by Kawahara is a graphical user interface window. It would have been obvious to one of ordinary skill in the art at the present time the invention was made to combine the teachings of a graphical user interface object into the system of Lengyel in order to apply shifted and blended texture information because window-based interfaces allow users to manipulate windows through a pointing device (such as a mouse) (p. 1 paragraph 5) and in addition, provides the functionality of rotating windows in a 3D display model, so that windows are viewed from an oblique angle through the 2D display, whereby the contents of the windows remain visible, while the windows

occupy less space in the 2D display and are less likely to overlap each other. (p. 1

paragraph 17)

Regarding claim 18, Lengyel fails to explicitly teach a graphical user interface

object comprises a graphical user interface window. This is what Kawahara teaches. (p.

2 paragraphs 25 and 28, p. 3 paragraph 59, p. 5 paragraph 86 and Fig. 10). It would

have been obvious to one of ordinary skill in the art at the present time the invention

was made to combine the teachings of a graphical user interface window into the

system of Lengyel in order to apply shifted and blended texture information because

window-based interfaces allow users to manipulate windows through a pointing device

(such as a mouse) (p. 1 paragraph 5) and in addition, provides the functionality of

rotating windows in a 3D display model, so that windows are viewed from an oblique

angle through the 2D display, whereby the contents of the windows remain visible, while

the windows occupy less space in the 2D display and are less likely to overlap each

other. (p. 1 paragraph 17)

Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lengyel ("Rendering with Coherent Layers") in view of Morgan (6756989) in further view

of Kawahara (20050204306) and Plante (7084875).

Regarding claim 19, Lengyel does not explicitly teach an illusion of motion.

However Lengyel does teach motion blurring. (p. 4 Section 3.4) Nonetheless Plante

teaches motion blurring may give the illusion of motion. (Col 1 lines 22-40) **It should be**

noted that examiner took official notice that motion blurring can provide an

illusion of motion and has now supplied a reference due to applicant's request. It

would have been obvious to one of ordinary skill in the art at the present time the

invention was made to utilize an illusion of motion into the system of Lengyel because

illusion of motion presented by motion blurring creates a more natural image of

movement for the human eye. Furthermore, Lengyel fails to explicitly teach a graphical

user interface object. This is what Kawahara teaches. (p. 2 paragraphs 25 and 28, p. 3

paragraph 59, p. 5 paragraph 86 and Fig. 10) It should be noted that the graphical

interface user object as taught by Kawahara is a graphical user interface window. It

would have been obvious to one of ordinary skill in the art at the present time the

invention was made to combine the teachings of a graphical user interface object into

the system of Lengyel because window-based interfaces allow users to manipulate

windows through a pointing device (such as a mouse) (p. 1 paragraph 5) and in

addition, provides the functionality of rotating windows in a 3D display model, so that

windows are viewed from an oblique angle through the 2D display, whereby the

contents of the windows remain visible, while the windows occupy less space in the 2D

display and are less likely to overlap each other. (p. 1 paragraph 17)

Claim 20 is similar in scope to claim 19 except for a graphic user interface

window. Kawahara teaches this (p. 2 paragraphs 25 and 28, p. 3 paragraph 59, p. 5

paragraph 86 and Fig. 10) It would have been obvious to one of ordinary skill in the art

at the present time the invention was made to combine the teachings of a graphical user

interface window into the system of Lengyel because window-based interfaces allow

users to manipulate windows through a pointing device (such as a mouse) (p. 1

paragraph 5) and in addition, provides the functionality of rotating windows in a 3D

display model, so that windows are viewed from an oblique angle through the 2D

display, whereby the contents of the windows remain visible, while the windows occupy

less space in the 2D display and are less likely to overlap each other. (p. 1 paragraph

17)

Allowable Subject Matter

Claims 6-10 are allowed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from examiner

should be directed to Kevin K Xu whose telephone number is 571-272-7747. The

examiner can normally be reached on Monday-Friday from 9 AM – 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mark Zimmerman can be reached on (571)-272-7653.

Information regarding the status of an application may be obtained from Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

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more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EB) at 866-217-9197 (toll-free).

KX   Kevin Xu

                                                                            11/8/2006

MARK ZIMMERMAN
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